WHAT IS CLAIMED IS:

1. A tubular element for forming pipes for trunk lines, purification plants and sewage systems in general, including: a tubular body provided with connection means for connection to the tubular body of laterally adjacent tubular elements, and a lining being provided on the internal surface of said tubular body; wherein said lining comprises: a sheet-like element with an internal reinforcement frame; a layer of self-sealing thermoplastic polymer that forms the internal surface of the tubular element and connected to said frame; and engagement means for engaging the internal surface of said tubular body.

2. A tubular element for forming pipes for trunk lines, purification plants and sewage systems in general, including: a tubular body provided with connection means for connection to the tubular body of laterally adjacent tubular elements; and a lining being provided on the internal surface of said tubular body; wherein said lining forms a continuous duct that is monolithically associated with the internal surface of said tubular body.

3. The tubular element of claim 1, wherein said internal reinforcement frame comprises a net made of metal or of synthetic fibers.

4. The tubular element of claim 1, wherein said internal reinforcement frame is provided by a layer of fabric or fibers.

5. The tubular element of claim 1, wherein said layer of self-sealing thermoplastic polymer is constituted by polyolefins modified with acid groups in order to form polar bonds.

6. The tubular element of claim 1, wherein said layer of self-sealing thermoplastic polymer is constituted by a plurality of overlapped layers of thermoplastic materials that are chemically compatible.

7. The tubular element of claim 1, wherein said engagement means are provided on a surface of the lining that lies opposite a surface thereof provided with said layer of self-sealing thermoplastic polymer.

8. The tubular element of claim 7, wherein said engagement means

comprise spikes that protrude from the face arranged opposite the one provided with said polymer layer.

9. The tubular element of claim 8, wherein said spikes are connected to the reinforcement frame.

10. The tubular element of claim 8, wherein said spikes are an integral part of said reinforcement frame.

11. The tubular element of claim 1, wherein said engagement means are provided connectable to the reinforcement frame of a concrete cast that constitutes said tubular element.

12. The tubular element of claim 7, wherein said engagement means are constituted by a surface that is rendered rough or irregular for adhesion by interposing adhesive materials.

13. The tubular element of claim 1, comprising a forming mold, said lining having, on a side thereof protruding said engagement means, and an interface sheet in order to facilitate separation from said mold.

14. The tubular element of claim 1, further comprising heating means integrated within said layer of self-sealing thermoplastic polymer.

15. The tubular element of claim 1, further comprising a self-sealing gasket that is usable to join laterally adjacent flaps of said layer of thermoplastic polymer.

16. The tubular element of claim 15, wherein said self-sealing gasket comprises a heat diffusion layer of the adhesive or non-stick type provided, on at least one face thereof with a self-sealing thermoplastic polymer.

17. The tubular element of claim 1, comprising a self-sealing and self-heating gasket that is arrangeable on said layer of thermoplastic polymer for localized melting of the thermoplastic polymer and embedding of said gasket.

18. The tubular element of claim 11, wherein said lining has a portion that protrudes with respect to the cast that constitutes said tubular body, said protruding lining portion being adapted to provide connection, without

discontinuities, to a protruding portion of the lining of a laterally adjacent tubular element.

19. The tubular element of claim 1, comprising a spacing element that is adapted to allow localized melting with uniform distribution of the thermoplastic polymer, and an inner gasket band that is arrangeable on an internal surface of said lining by way of said spacing element.

20. The tubular element of claim 1, comprising a repair lining that is constituted by a lining portion provided with internal or external heating means located at least at a peripheral region thereof in order to overlap an existing lining.

21. The tubular element of claim 14, wherein said heating means embedded in said lining have power supply cables that protrude outside for connection to a source of electric power.

22. The tubular element of claim 21, wherein said power supply cables pass through a cast that constitutes said tubular body.

23. The tubular element of claim 1, comprising a central core which acts as a containment element, said lining having, on an outer surface thereof, coupling elements, and a tensioning jaw engaged by said coupling elements in order to position said lining so as to adhere to said central core.